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10/537,418

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EXAMINER

MENON, KRISHNAN S

ART UNIT

PAPER NUMBER

1797

MAIL DATE

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09/21/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|-------------------------------------|--|
| Office Action Summary | Application No. 10/537,418 | Applicant(s) DAVID ET AL. | |
| | Examiner Krishnan S. Menon | Art Unit 1797 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,5,6 and 10-14 is/are pending in the application.
- 4a) Of the above claim(s) 6 and 11-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,5 and 10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

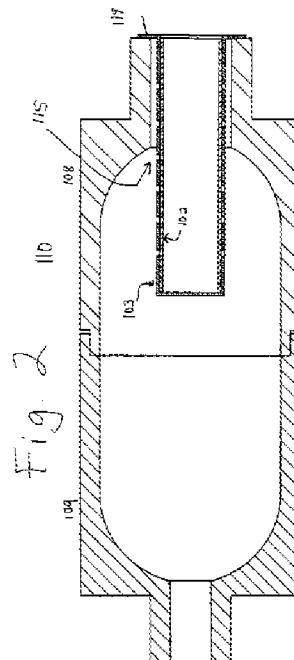
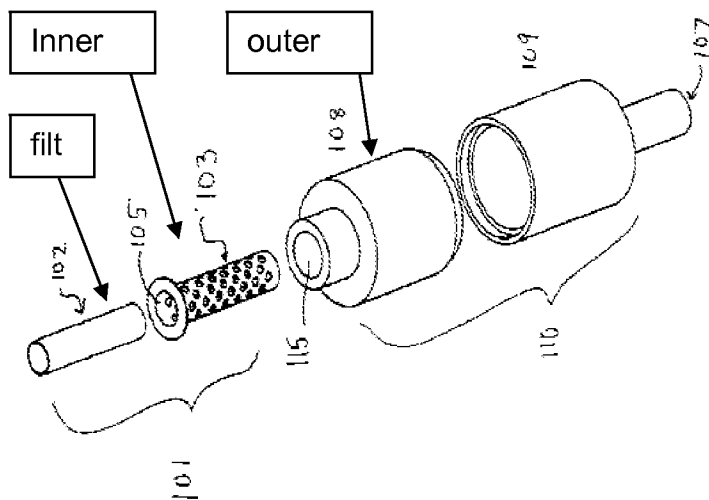
- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1, 5, 6 and 10-14 are pending as amended 6/29/09 in the RCE of 1/26/09, of which claims 6 and 11-14 are withdrawn from consideration.

Claim Rejections - 35 USC §103

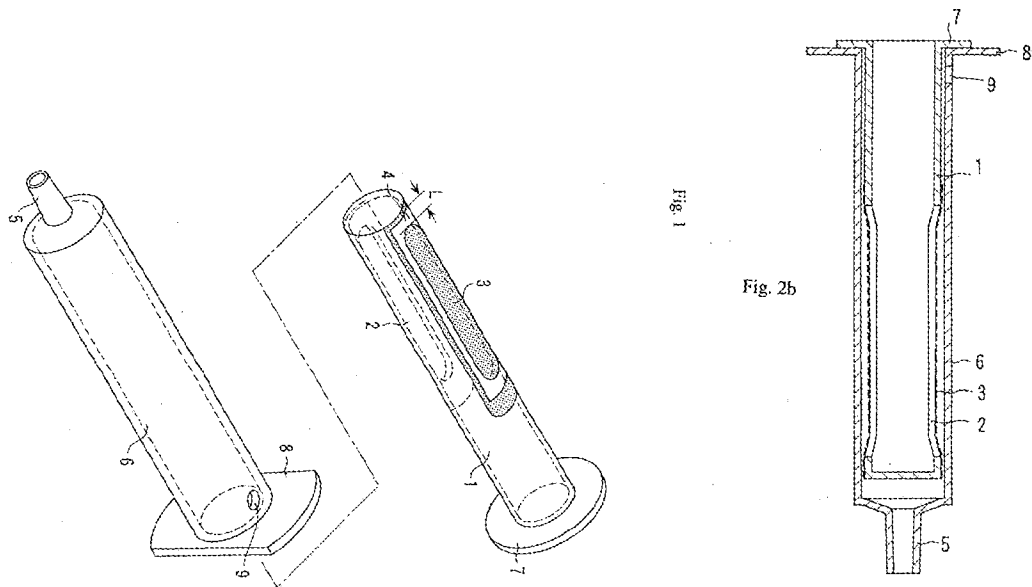
1. Claims 1,5 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hunicke-Smith (US 2002/0185429) in view of Haight (US 6758,951) or Vagihashi et al (US 5,885,454)



Hunicke-Smith: Details of claims 1, 5 and 10 are clear from the exploded view of the device shown above, which are figures 1 and 2 of the Hunicke-Smith reference. Material of the outer tube is plastic or glass. Membrane is Teflon, pore size can be as

desired, and also in the claimed range – see paragraphs 34-36. Oil/water separation is intended use. The bottom is funnel shaped.

Applicant's fig 2b - see applicant's fig 1 and 2b reproduced below. In the reference, the 'large diameter upper end' of the inner tube (the flange) rests or stops on the rim or upper end of the outer tube.



Regarding the vent as recited in claim 1, since the inner tube is only resting over the top rim of the outer tube as seen in the figures of the reference (no tight seal), the top opening (mouth) of the outer tube functions as a vent. Also, providing a vent hole when necessary would be within the skill level of one of ordinary skill in the art, and such vents are also well known in the art.

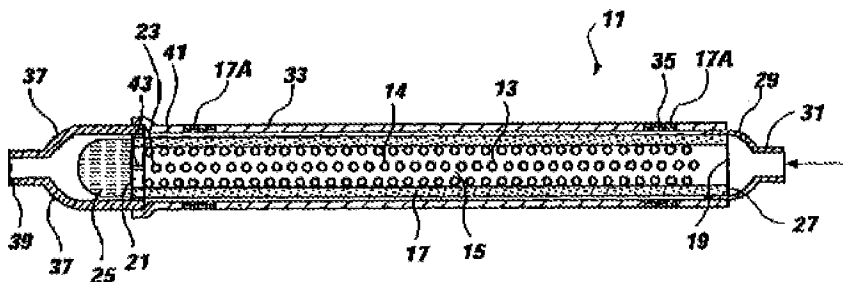
It would also be obvious to one of ordinary skill to provide a vent for letting air in or out depending on the operation, as taught by Haight or Vagihashi as shown below.

Claim 5 is considered as an obvious equivalent of applicant's fig.1, and thus obvious over this reference. Also, the shape of the membrane as defined is not

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patentable unless shown otherwise: In *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device. In *re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966) (The court held that the configuration of the claimed disposable plastic nursing container was a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration of the claimed container was significant.).

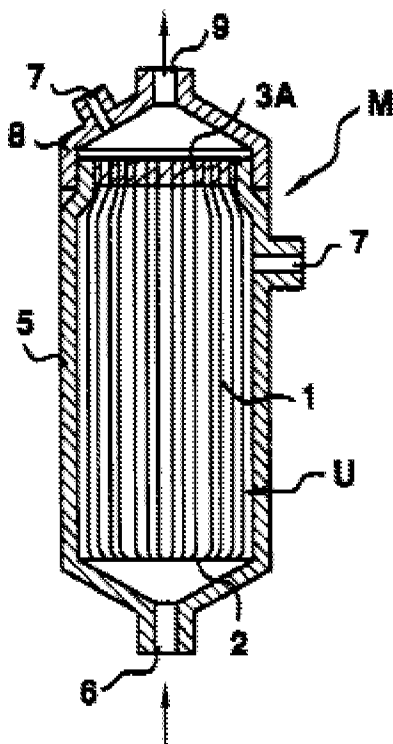
Haight: Haight teaches (see fig 1 below) a perforated inner tube (15) having a membrane (17) wound around it, which is inserted in an outer tube (33), which has a bottom drain (39) and a vent (35). See the figure below. Haight provides an air vent to allow passage of air in either direction for smooth flow of fluids. It would be obvious to one of ordinary skill in the art to provide air vents required as taught by Haight in the teaching of Hunicke-Smith for venting any trapped air.

**Fig. 1**

Vagihashi teaches a hollow fiber membrane module having plurality of hollow fibers (1) with the top end open and bottom end closed, arranged on a tube-sheet (3a), and inserted into a shell (5) with a funnel bottom having an opening, and a vent (7) – see fig 1 copied below. The hollow fiber is hydrophobic – made of polypropylene. This reference differs from the claimed invention only in the attachment of the inner tube(s) to the outer shell – that the attachment is not loose and not using an enlarged end.

It would be obvious to one of ordinary skill in the art to provide such vents as taught by Vagihashi in the teaching of Hunicke-Smith as well. Also as can be seen from these references that use of such vents is a common practice and is therefore not inventive unless applicant can show otherwise.

FIG.1

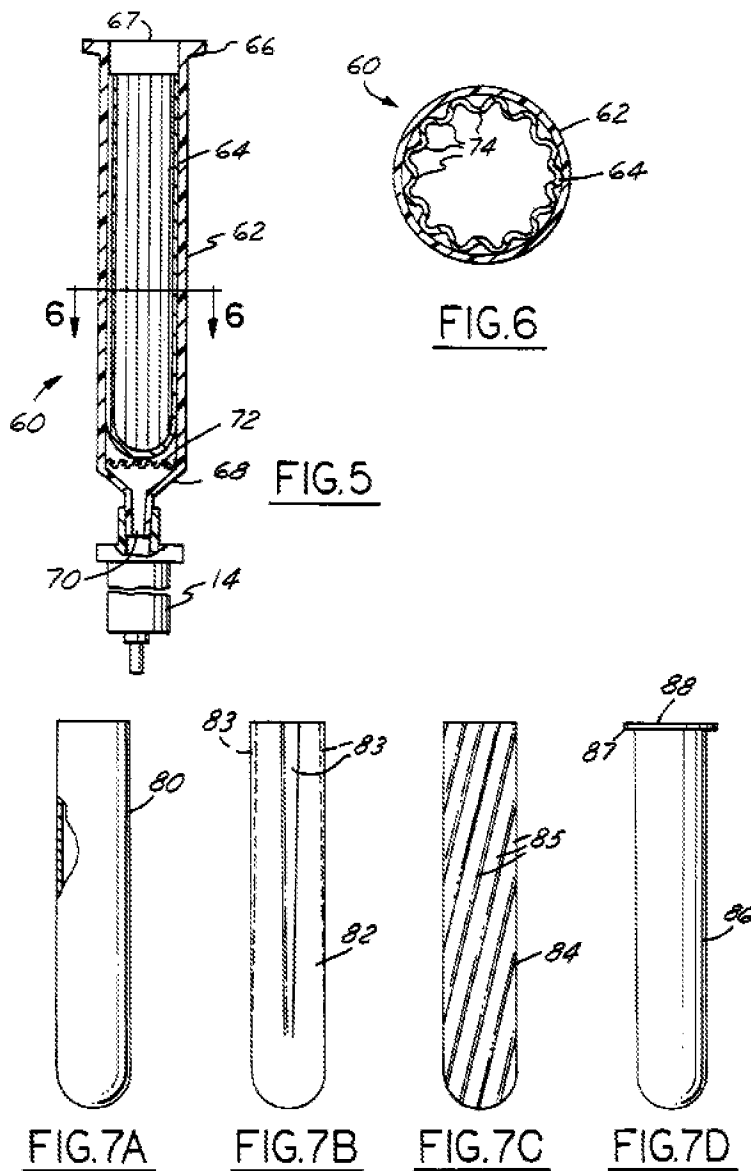


One of ordinary skill would combine the teachings of these references to arrive at applicant's invention because it provides nothing more than predictable results. See *KSR Int'l. v. Teleflex Inc.*, 127 S. Ct. 1727, 1732, 82 USPQ2d 1385, 1390 (2007). "it is commonsense that familiar items have obvious uses beyond their primary purposes, and a person of ordinary skill often will be able to fit the teachings of multiple patents together like pieces of a puzzle". "The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results".

2. Claims 1,5 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeWit (US 6,183,645) in view of Haight or Vagihashi.

Dewit teaches a thimble filter (86) inside a tube (62) which has a wide open top on which the filter rests (fig 5 and 7D), and an outlet at the bottom. Filter material is Teflon (C3, L20-23).

The reference does not teach a vent hole and the pore size of the filter. The structure as contemplated by figures 5 and 7D (the thimble filter of 7D has a flange on top which rests on the flange 66 of fig 5) would be self-venting since the thimble filter in fig 7D would only loosely fit the tube (62). However, providing a vent hole is within the skill of one of ordinary skill in the art and is not patentable without a showing of non-obviousness with secondary evidences. Providing a vent in this type of filter designs is also known in the art – see Haight or Vagihashi above. Pore sizes of the filter can be chosen for its intended use as is evidenced by the references cited above in rejection 1.



Response to Arguments

Arguments are not persuasive. Argument about Hunicke-Smith regarding the vent is not persuasive: the inner tube is not sealed to the outer tube at the top, loosely fit.

Providing a vent in the outer tube is also a simple choice of design, and has no

patentable merit, unless applicant can provide evidence otherwise. Argument about Hunicke-Smith being a centrifugal tube is also not commensurate in scope with the rejection – use as centrifugal tube is only an intended use.

The argument against Haight regarding the vent is not commensurate with the rejection – the hydrophobic material is provided as an air-vent, and therefore, argument that there is no liquid flow is immaterial to the issue.

Argument against DeWitt is not understood. Apparently something is missing from the text.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krishnan S. Menon whose telephone number is 571-272-1143. The examiner can normally be reached on 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vickie Kim can be reached on 571-272-0579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Krishnan S Menon/
Primary Examiner, Art Unit 1797